

**Operating Instructions
Safety Switch
CET.-AS-...-CB-... (Multicode)**

Contents

Correct use	3
Possible combinations for CET components	4
Exclusion of liability and warranty	4
General safety instructions	5
Function	6
Function of the electronics	6
Function of the guard locking	8
Mechanical release and mechanical key release (can be retrofitted)	10
Emergency unlocking (can be retrofitted)	11
Lockout mechanism (optional)	12
Changing the approach direction	13
Mounting	14
Electrical connection	16
Setting the AS-Interface address	16
Control of the guard locking	16
Configuration in the AS-Interface safety monitor	17
AS-Interface status messages	18
Setup	19
LED indicators	19
Initial setup	19
Functional check	20
System status table	21
Technical data	22
Technical data for safety switch CET.-AS-...-CB-...	22
Dimension drawing safety switch CET.-AS	24
Technical data actuator CET-A-BWK-50X	26
Accessories	27
Inspection and service	28
Service	28
Declaration of conformity	29

Correct use

The safety switch CET.-AS is operated as a slave on the safety bus AS-Interface *Safety at Work* and functions as an electromagnetic interlock device with guard locking.

In combination with a safety guard and the machine control, this safety component prevents the safety guard from being opened while a dangerous machine movement is being performed.

For the control system, this means that

- starting commands which cause hazardous situations must become active only when the safety guard is in protective position and the guard locking is in locked position. The locked position of the guard locking must be released only when the hazardous situation is no longer present.

Before safety components are used, a risk assessment must be performed on the machine, e.g., in accordance with

- EN ISO 13849-1, Safety of machinery. Safety related parts of control systems. General principles for design, Annex B
- EN ISO 12100, Safety of machinery – General principles for design – Risk assessment and risk reduction.
- IEC 62061, Safety of machinery. Functional safety of safety-related electrical, electronic and programmable electronic control systems.

Correct use includes compliance with the relevant requirements for installation and operation, in particular

- EN ISO 13849, Safety of machinery. Safety related parts of control systems. General principles for design
- EN 1088, Safety of machinery. Interlocking devices associated with guards. Principles for design and selection
- EN 60204-1, Safety of machinery. Electrical equipment of machines. General requirements.

The safety switch must be used only in conjunction with the designated CET actuator from EUCHNER. On the use of different actuators, EUCHNER provides no warranty for safe function.

Important:

- The user is responsible for the integration of the device into a safe overall system. For this purpose, the overall system must be validated, e.g. in accordance with EN ISO 13849-2.
- Correct use requires observing the permissible operating parameters (see section *Technical data* page 22).
- If a product data sheet is included with the product, the information on the data sheet applies in case of discrepancies with the operating instructions.
- In the estimation of the PL for the overall system, a maximum value of 100 years can be assumed for the $MTTF_d$ according to the limit value in EN ISO 13849-1:2008, section 4.5.2. This corresponds to a minimum value for the PFH_d of $2.47 \times 10^{-8}/h$.
- If the simplified method according to section 6.3 EN ISO 13849:2008-12 is used for validation, the Performance Level (PL) may be reduced if several devices are connected one after the other.
- It is only allowed to use components that are permissible in accordance with the table below.

Possible combinations for CET components

Safety switch	Actuator	
	CET-A-BWK-50X 096327	
CET.-AS-...-CB-...	●	
Key to symbols	●	Combination possible

Exclusion of liability and warranty

In case of failure to comply with the conditions for correct use stated above, or if the safety instructions are not followed, or if any servicing is not performed as required, liability will be excluded and the warranty void.

General safety instructions

As the unique actuator codes are not evaluated, the CET.-AS-...-CB-... version can only be used for applications in which a hazard cannot result from possible tampering with the system.

Safety switches fulfill personal protection functions. Incorrect installation or tampering can lead to fatal injuries to personnel.

Check the safe function of the safety guard particularly

- after any setup work
- after the replacement of a CET component
- after an extended period without use
- after every fault

Independent of these checks, the safe function of the safety guard should be checked at suitable intervals as part of the maintenance schedule.

Warning!

Danger of fatal injury in the event of incorrect connection or incorrect use.

- Safety switches must not be bypassed (bridging of contacts), turned away, removed or otherwise rendered ineffective. On this topic pay attention in particular to the measures for reducing the possibility of bypassing from EN 1088:1995+A2:2008, section 5.7.

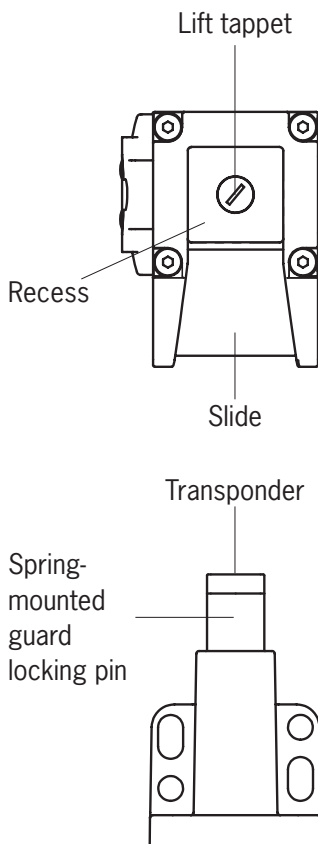
The device is only allowed to be installed and placed in operation by authorized personnel

- who are familiar with the correct handling of safety components
- who are familiar with the applicable EMC regulations
- who are familiar with the applicable regulations on health and safety and accident prevention
- who have read and understood the operating instructions.

Important:

Prior to use, read the operating instructions and keep it in a safe place. Ensure the operating instructions is always available during mounting, setup and servicing. EUCHNER cannot provide any warranty in relation to the readability of the CD for the storage period required. For this reason you should archive a printed copy of the operating instructions. If you should lose the operating instructions, you can download this documents from [www. EUCHNER.de](http://www.EUCHNER.de).

Function



Function of the electronics

Safety switches series CET.-AS permit locking of movable safety guards. They meet the following safety requirements:

- › Category 3, PLe according to EN ISO 13849-1 (mounting head upward)
- › Category 4, PLe according to EN ISO 13849-1 (mounting head downward or horizontal)

The non-contact safety switch **CET.-AS** consists of three components: coded actuator (transponder), evaluation unit and read head. The evaluation unit is integrated into the switch housing with the read head.

Each actuator possesses a unique electronic coding and so is a unique element in the system used. The code in an actuator cannot be reprogrammed.

Unlike systems with unique code detection, on multicode devices a specific code is not requested but instead it is only checked whether the actuator is of a type that can be detected by the system (multicode detection). There is no exact comparison of the actuator code with the code defined in the safety switch (unique code detection).

The safety switch with integrated evaluation unit and read head is fastened to the fixed part of the safety guard.

The actuator attached to the movable part of the safety guard is moved towards the read head fitted in the safety switch by closing the door. When the switch-on distance is reached, power is supplied to the actuator by the inductive read head and data can be transferred.

If the actuator is above the extended lift tappet, the door is closed and the half-sequence is sent via the AS-Interface bus (state: safety guard closed, guard locking not active).

The code sequence is sent via the AS-Interface bus when the actuator is inserted into the recess (state: safety guard closed, guard locking active).

The bit sequence 0000 is sent via the AS-Interface bus when the safety guard is opened.

Status table

Programming	State	D0, D1	D2, D3	Monitor diagnosis
Dual-channel conditionally dependent	Safety guard closed, guard locking active	Code sequence		Green
	Guard locking open	Half-sequence	00	Yellow flashing
	Invalid state (safety guard open, guard locking active)	00	Half-sequence	Red flashing (monitoring of the invalid state)
	Safety guard open	00	00	Red
	Address 0 or communication disrupted	–		Gray
Dual-channel independent	Safety guard closed, guard locking active	Code sequence		Green
	Guard locking open	Half-sequence	00	Red
	Invalid state (safety guard open, guard locking active)	00	Half-sequence	Red (monitoring of the invalid state)
	Safety guard open	00	00	Red
	Address 0 or communication disrupted	–		Gray
Dual-channel dependent Synchronization time infinite ∞	Safety guard closed, guard locking active	Code sequence		Green if safety guard was previously open or yellow flashing after startup if only the guard locking was open.
	Guard locking open	Half-sequence	00	Yellow flashing if safety guard was previously closed. Red if safety guard was previously open.
	Invalid state (safety guard open, guard locking active)	00	Half-sequence	Yellow flashing if safety guard was previously closed. Red if safety guard was previously open.
	Safety guard open	00	00	Red
	Address 0 or communication disrupted	–		Gray

Function of the guard locking

Version CET3-AS, guard locking by spring force with door monitoring output

The lift tappet is pressed into the locked position by the force of the spring for the guard locking pin in the actuator and unlocked electromagnetically by the safety switch.

The guard locking solenoid is switched by software via AS-Interface output bit D0.

The guard locking functions in accordance with the closed-circuit current principle.

The guard locking cannot be opened directly if the guard locking solenoid is switched off by means of AS-Interface output bit D0. The door can be opened directly if the guard locking solenoid is switched on by means of AS-Interface output bit D0.

Closing safety guard and activating guard locking

The lift tappet is pushed down by the actuator. The door monitoring contact and the solenoid monitoring contact are closed. The complete safety code sequence is sent via AS-Interface input bits D0 to D3.

Deactivating guard locking

Switching the guard locking solenoid off via AS-Interface output bit D0 extends the lift tappet and raises the actuator's guard locking pin over the edge of the recess. The half-sequence is sent via AS-Interface input bits D0 and D1 in every bus cycle.

Opening safety guard

Opening the safety door moves the actuator out of the operating distance. The values 0, 0, 0, 0 are continuously sent via AS-Interface input bits D0 to D3.

Version CET4-AS, guard locking by solenoid force with door monitoring output

Important:

The safety guard can be opened immediately in the event of interruption of the solenoid power supply! Usage only in special cases in accordance with strict evaluation of the accident risk (see DIN EN 1088 (1995), section 5.5)!
Example: If the risk of accidental locking inside a safety guard during a power failure is higher than the risk of ineffective guard locking.

The guard locking operates in accordance with the open-circuit current principle.

The lift tappet is held in locked position by electromagnetic force and released by spring force. The guard locking solenoid is switched by software via AS-Interface output bit D0.

Closing safety guard and activating guard locking

The safety door can be opened as long as the lift tappet is held in the extended position. Switching the guard locking solenoid on via AS-Interface output bit D0 releases the lift tappet. The actuator's guard locking pin can now press the lift tappet down. The safety door is locked and the solenoid monitoring contact is closed as soon as the guard locking pin is fully inserted into the recess. The complete safety code sequence is sent via AS-Interface input bits D0 to D3.

Deactivating guard locking

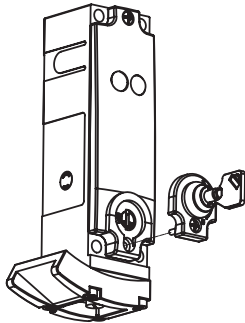
Switching the guard locking solenoid off via AS-Interface output bit D0 extends the lift tappet and raises the actuator's guard locking pin over the edge of the recess. The half-sequence is sent via AS-Interface input bits D0 and D1 in every bus cycle.

Opening safety guard

Opening the safety door moves the actuator out of the operating distance. The values 0, 0, 0, 0 are continuously sent via AS-Interface input bits D0 to D3.

Mechanical release and mechanical key release (can be retrofitted)

Important:



- The mechanical release is not a safety function.
- The machine manufacturer must select and use a suitable release (escape release, emergency unlocking, etc.) for a specific application. A risk assessment appraisal is required for this purpose. It may be necessary to take specifications from a product standard into account.
- The mechanical key release must not be used to lock the switch during maintenance work to prevent activation of guard locking, for example.
- The correct function must be checked at regular intervals.
- Loss of the release function due to mounting errors or damage during mounting.
- Check the release function every time after mounting.
- Loss of the release function due to tension on the actuator. The door must not be under tension during release.
- Please observe the notes on any enclosed data sheets.

The mechanical release can be used to unlock guard locking, irrespective of the state of the solenoid.

Using mechanical release

1. Unscrew locking screw
2. Using a screwdriver, turn the mechanical release by around 180° in the direction of the arrow

The lift tappet is extended and raises the actuator's guard locking pin over the edge of the recess. The half-sequence is sent via AS-Interface input bits D0 and D1 in every bus cycle.

➡ The safety device can be opened

The mechanical release must be returned to its original position and sealed after use (for example with sealing lacquer).

Using mechanical key release

On devices with mechanical key release (can be retrofitted), simply turn the key to unlock. For mounting, see the mechanical key release supplement.

The lift tappet is extended and raises the actuator's guard locking pin over the edge of the recess. The half-sequence is sent via AS-Interface input bits D0 and D1 in every bus cycle.

Emergency unlocking (can be retrofitted)

Important:

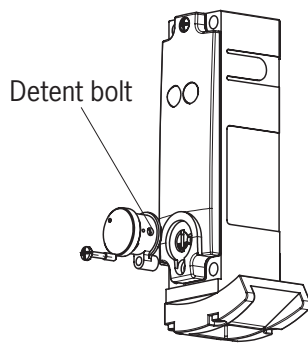
- Emergency unlocking is not a safety function.
- The machine manufacturer must select and use a suitable release (escape release, emergency unlocking, etc.) for a specific application. A risk assessment appraisal is required for this purpose. It may be necessary to take specifications from a product standard into account.
- The correct function must be checked at regular intervals.
- Loss of the release function due to mounting errors or damage during mounting.
- Check the release function every time after mounting.
- Loss of the release function due to tension on the actuator. The door must not be under tension during release.
- Please observe the notes on any enclosed data sheets.

Emergency unlocking can be used to unlock guard locking, irrespective of the state of the solenoid. For mounting, see the mounting supplement.

Using emergency unlocking

Important:

The door must not be under tension when emergency unlocking is actuated.



- Turn emergency unlocking clockwise until it clicks into place.

The lift tappet is extended and raises the actuator's guard locking pin over the edge of the recess. The half-sequence is sent via AS-Interface input bits D0 and D1 in every bus cycle.

- ➔ The safety device can be opened

To reset, press the detent bolt inward using a small screwdriver or similar tool and turn the emergency unlocking back.

Lockout mechanism (optional)

Important:

- The lockout mechanism is not a safety function.
- The correct function must be checked at regular intervals.

The lockout mechanism can be used to prevent maintenance personnel from being unintentionally locked in the danger area, for example.

In locked position, the lockout mechanism prevents activation of guard locking. The lockout mechanism can be secured in locking position with up to three locks. The mechanical release can still be used.

Using the lockout mechanism

Important:

Deactivate guard locking and open the safety door before using the lockout mechanism.

Before entering the danger area:

1. Open the door
 2. Press button, move lockout mechanism to locking position (Figures A and B) and secure with lock (Figure C)
- ➔ Guard locking cannot be activated, and it must not be possible to start the machine. Important: Test this before entering the danger area.

Resetting the lockout mechanism:

1. Open the safety door if necessary
2. Remove the lock
3. Move lockout mechanism to basic position (Figure A)

Locking function not active

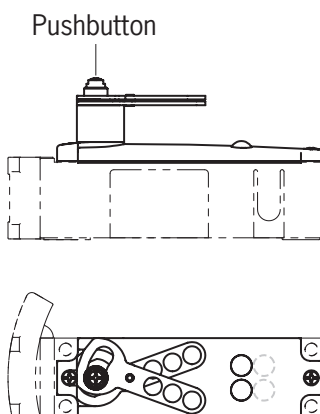


Figure A

Locking function active

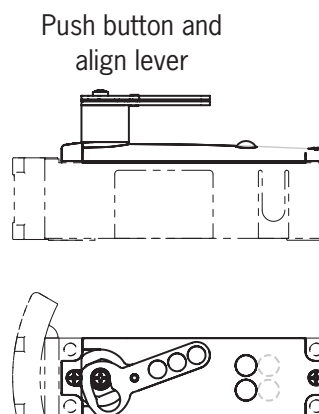


Figure B

Locking function active and secured

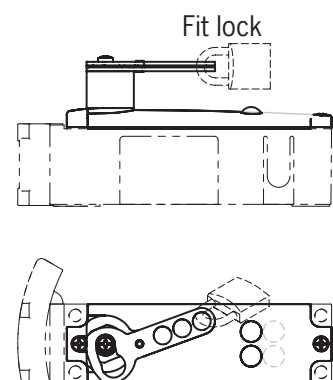
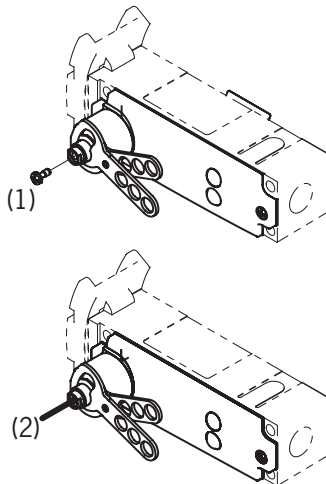


Figure C



Using mechanical release

1. Unscrew locking screw
2. Operate the mechanical release through the threaded bore of the locking screw (e.g. with a metal rod $\varnothing 3$ mm)

The lift tappet is extended and raises the actuator's guard locking pin over the edge of the recess. The half-sequence is sent via AS-Interface input bits D0 and D1 in every bus cycle.

➔ The safety device can be opened

The locking screw must be screwed back in and sealed after use (for example with sealing lacquer).

Changing the approach direction

1. Remove the screws from the safety switch
2. Set the required direction
3. Tighten the screws with a torque of 1.5 Nm.

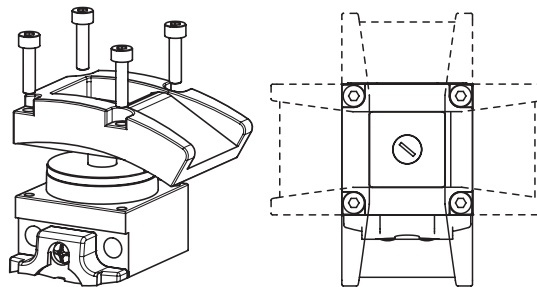


Figure 1: Changing the approach direction

Mounting

Caution!

Safety switches must not be bypassed (bridging of contacts), turned away, removed or otherwise rendered ineffective.

- › On this topic pay attention in particular to the measures for reducing the possibility of bypassing according to EN 1088:1995.A2:2008, Sec. 5.7.
- › The max. achievable category according to EN 13849-1 depends on the installation position (see *Technical data* page 22).

Caution!

Risk of damage to equipment as a result of incorrect installation.

- › Safety switches must not be used as a mechanical end stop. Fit an additional end stop for the movable part of the safety guard.
- › Observe the min. door radii (see figure below).
- › Ensure that the actuator contacts the slide in the designated area (see figure below). Marks on the slide specify the prescribed approach zone.
- › The prerequisite for trouble-free long-term operation is protection of the switch head and the actuator against penetrating foreign objects such as swarf, sand, and blasting shot, etc. The switch should be installed with the actuating head down for this purpose.
- › Cover the switch and the actuator during painting work.

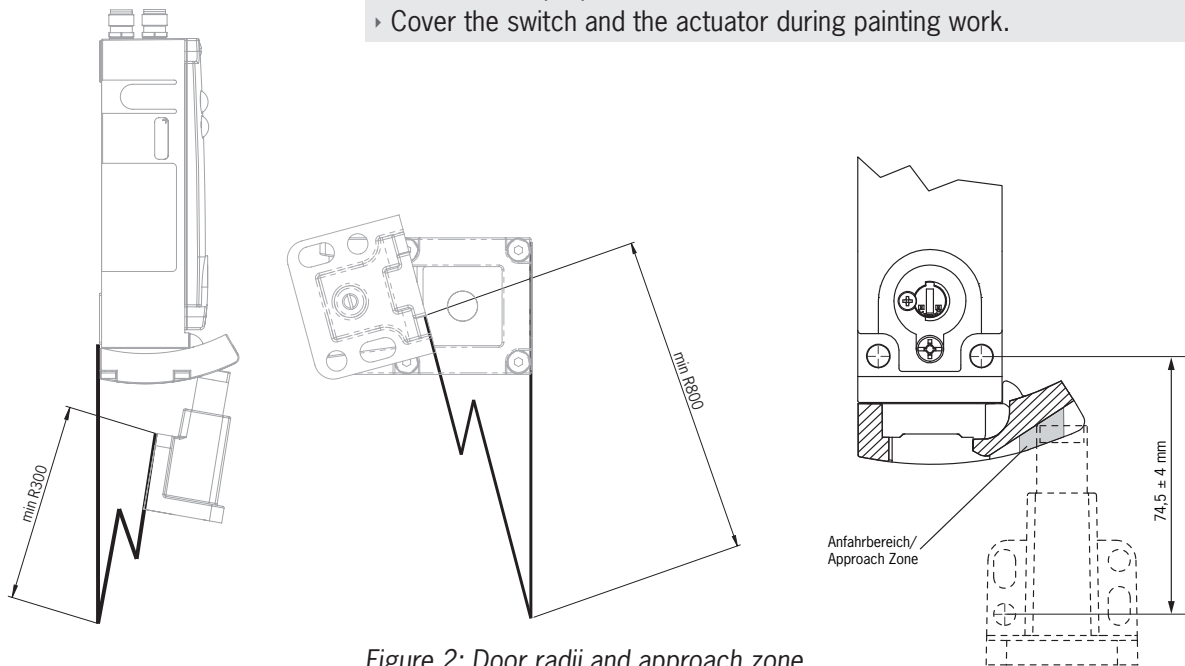
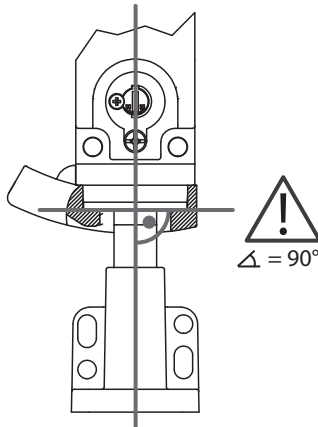
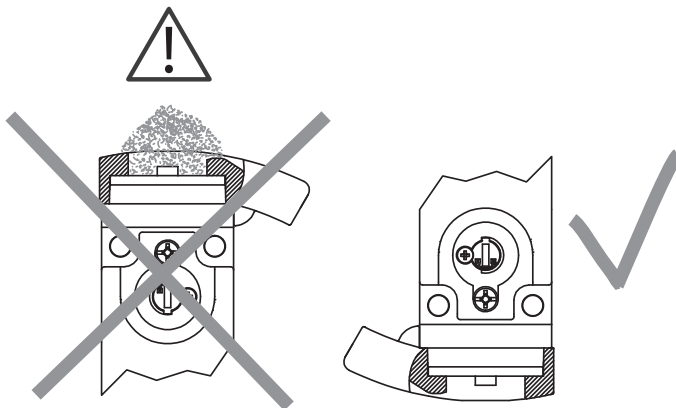


Figure 2: Door radii and approach zone

Note the following points:



- › Actuator and safety switch must be easily accessible for inspection and replacement.
- › The switching operation must only be triggered by the specific actuator designated for this purpose.
- › Actuator and safety switch must be fitted so that
 - › the actuator is positively mounted on the safety guard, e.g. by using the safety screws included.
 - › they cannot be removed or tampered with using simple means.
 - › the active faces of the actuator and the safety switch are parallel to each other (see figure on the left).
 - › the actuator is fully inserted into the switch recess when the safety guard is closed (see figure on the left).
 - › no dirt can accumulate in the recess.



Electrical connection

Important:

The devices are tested according to the requirements of UL508.
For use and operation as per the requirements of UL (UL), an isolating transformer or a power supply with secondary overcurrent protection (3 A) must be used:

- Electrically isolated power supply unit with a max. open-circuit voltage of 33.3 V/DC and a limited current of max. 8 A.

or

- Electrically isolated power supply unit in combination with fuse as per UL248. This fuse should be designed for max. 3 A and should be integrated into the 33.3 V/DC voltage section.

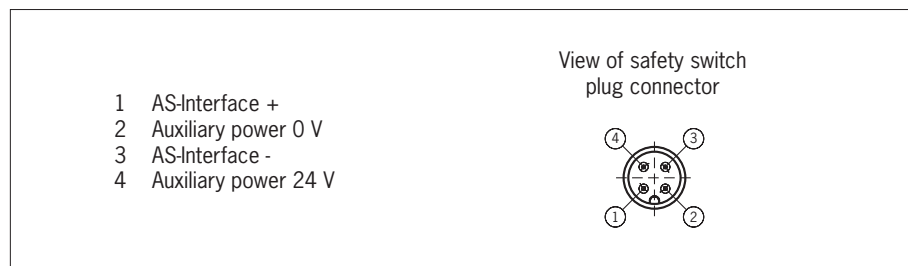


Figure 3: AS-Interface M12 plug connector terminal assignment

Setting the AS-Interface address

The address can be set prior to or after assembly.

The AS-Interface address of the safety switch is set using an AS-Interface programming device. Addresses 1 to 31 are valid.

The unit is programmed by connecting the programming device to the M12 plug connector on the safety switch with an AS-Interface programming device.

Address 0 is the default setting on delivery (the AS-Interface LED flashes alternately red/yellow during operation).

Control of the guard locking

The guard locking is opened and closed using the output D0. When the guard locking is open, the safety circuit shuts down.

Observe the following if the guard locking solenoid on a CET3-AS spring interlock safety switch in the operating mode door locking for duration of the time-delay is switched on (unlocked) via the second release contact of a dual-channel safety monitor and a PLC:

- It is not possible to switch off the guard locking solenoid by means of the monitor alone. The control system (PLC) must therefore switch off the guard locking solenoid in locked position via AS-Interface output D0 = 0 in order to re-establish the switch-on conditions for the first OSSD.
- The AS-Interface output must be switched on with D0 = 1 so that the guard locking solenoid can be unlocked by the second safety output of the monitor.

Configuration in the AS-Interface safety monitor

(see operating instructions for the AS-Interface safety monitor)

Dual-channel dependent

**Cat.
4**

The safety switch is configured in the AS-Interface safety monitor with the AS-Interface address set as follows, for example:

- dual-channel dependent
- with or without start-up test
- Synchronization time = infinite

In this mode, the safety guard must be opened each time prior to restarting.

Dual-channel conditionally dependent

**Cat.
4**

The safety switch is configured in the AS-Interface safety monitor with the AS-Interface address set as follows, for example:

- dual-channel conditionally dependent
- independent: In-1

Important:

The switch is monitored for a malfunction; the door message must not switch before guard lock monitoring. The safety guard does not have to be opened in this operating mode. Safety is provided again when the guard locking is closed.

Dual-channel independent

**Cat.
1**

The safety switch is configured in the AS-Interface safety monitor with the AS-Interface address set as follows, for example:

- dual-channel independent
- with or without start-up test

Important:

Failure of a signal or function is not detected in this operating mode. The safety guard does not have to be opened in this operating mode. Safety is provided again when the guard locking is closed.

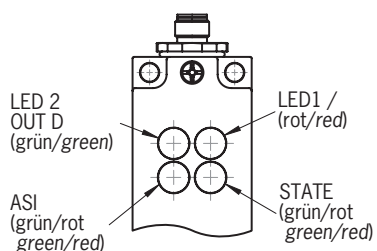
AS-Interface status messages

A dual LED (red/green) displays the colors red, green and yellow. The following table provides assistance with troubleshooting.

State LED ASI	Explanation
green	Normal operation
red	No data exchange between master and slave Cause: - Master in STOP mode - Slave not in LPS - Slave with wrong IO/ID
red/yellow alternately flashing	No data exchange between master and slave Cause: slave address = 0
red/green alternately flashing	Auxiliary power not connected
red flashing	or device fault in the slave. Contact EUCHNER.

Two additional function LEDs may be activated via the AS-Interface bus, e.g. to display the door status. The LEDs are connected as an output to the AS-Interface bus via bits D1 and D2.

Setup



LED indicators

LED	Color	State	Significance
STATE	green	illuminated 	Normal operation (further signal functions see <i>System status table page 21</i>)
		flashing 	
ASi	red/green	Status messages see chapter <i>AS-Interface status messages page 18</i>	
STATE	red	illuminated 	Internal electronics fault
LED 1	red	freely configurable*	
LED 2	green	freely configurable*	

* Can vary depending on version. See data sheet.

Initial setup

1. Apply operating voltage to the safety switch.
 - ➔ The green LED flashes cyclically one time and signals that it is in standby state.
2. Move actuator to the read head (observe distance < S_{ao}).
 - ➔ The green LED illuminates continuously and indicates the detection of the actuator.

Functional check

Warning!

Danger of fatal injury as a result of faults in installation and functional check.

- Before carrying out the functional check, make sure that there are no persons in the danger area.
- Observe the valid accident prevention regulations.

Mechanical function test

The actuator must slide easily into the recess on the actuating head. Close the safety guard several times to check the function.

Electrical function test

After installation and any fault, the safety function must be fully checked. Proceed as follows:

1. Switch on operating voltage.
 - ➔ The machine must not start automatically.
2. Close all safety guards. Guard locking by solenoid force: Activate guard locking.
 - ➔ The machine must not start automatically. It must not be possible to open the safety guard
 - ➔ The STATE LED illuminates continuously in green.
3. Enable operation in the control system.
 - ➔ It must not be possible to deactivate the guard locking as long as operation is enabled.
4. Disable operation in the control system and deactivate guard locking.
 - ➔ The safety guard must remain locked until there is no longer any risk of injury.
 - ➔ It must not be possible to start the machine as long as the guard locking is deactivated.

Repeat steps 2-4 for each safety guard.

System status table

Operating mode	Actuator/door position	LED indicator output		State
		STATE (green)	STATE (red)	
Normal operation	closed		○	Normal operation, door closed and locked
	closed	 1 x	○	Normal operation, door closed and not locked
	open	 1 x	○	Normal operation, door open
	X	 5 x		Internal fault (e.g. component faulty, data error)
	X	X	X	Internal fault
Key to symbols	○		LED not illuminated	
			LED illuminated	
	 10 Hz (8 s)		LED flashes for 8 seconds at 10 Hz	
	 3 x		LED flashes three times	
	X		Any state	

After the cause has been remedied, faults can generally be reset by opening and closing the door. If the fault is still displayed afterward, use the reset function or briefly interrupt the power supply. Please contact the manufacturer if the fault could not be reset after restarting.

Important:

If you do not find the displayed device status in the System status table, this indicates an internal device fault. In this case, you should contact the manufacturer.

Technical data

Note:

If a product data sheet is included with the product, the information on the data sheet applies in case of discrepancies with the operating instructions.

Technical data for safety switch CET.-AS-...-CB-...

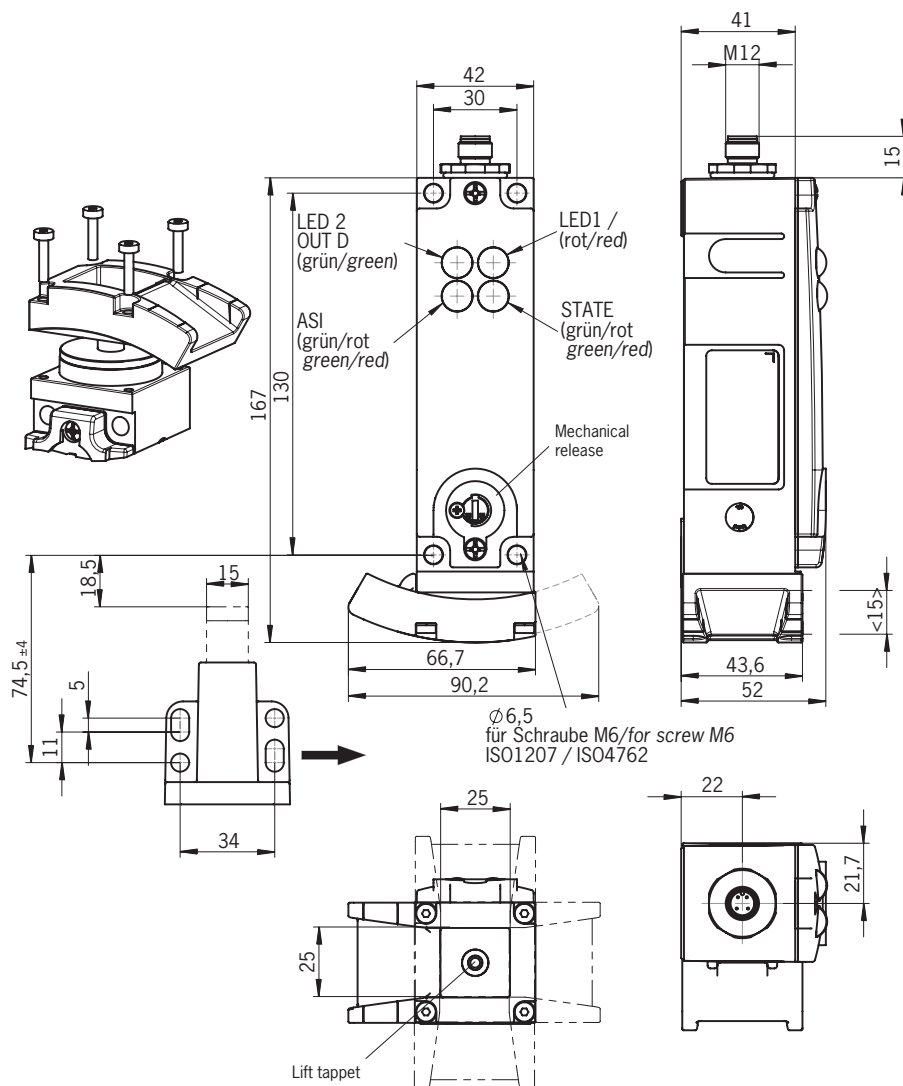
Parameter	min.	Value typ.	max.	Unit
General				
Material, slide		Stainless steel		
Material, safety switch housing		Die-cast aluminum		
Installation position		Any (recommendation: switch head downward)		
Degree of protection		IP 67		
Actuator approach speed, max.		20		m/min
Locking force $F_{\max}$		6,500		N
Locking force F_{zh} in acc. with GS-ET-19		$F_{zh} = F_{\max} / 1.3 = 5,000$		N
Weight		Approx. 1.0		kg
Degrees of freedom (actuator in recess) X, Y, Z		X, Y ± 5 ; Z ± 4		mm
Connection type (depending on version)		Plug connector M12, 4-pin		
Auxiliary voltage		24 -10%/+15%		V DC
Current consumption		50		mA
Current consumption solenoid I_{CM}		400		mA
Classification acc. to EN IEC 60947-5-3		PDF-M		
AS-Interface data EA code: 7 ID code: B				
Total current consumption	-	-	30	mA
Valid AS-Interface addresses		1 - 31		
AS-Interface inputs Acc. to AS-Interface Safety at Work				
Door monitoring contact		D0, D1		
Solenoid monitoring contact		D2, D3		
AS-Interface outputs				
Guard locking solenoid		D0, 1 = solenoid energized		
Red LED		D1, 1 = LED on		
Green LED		D2, 1 = LED on		
Reliability values according to EN ISO 13849-1				
	Head downward or horizontal		Head upward	
Category	4		3	
Performance Level (PL)	e		e	
PFH_d	$3.1 \times 10^{-9} / h$		$4.29 \times 10^{-8} / h$	
Mission time	20		20	
			years	

Typical system times

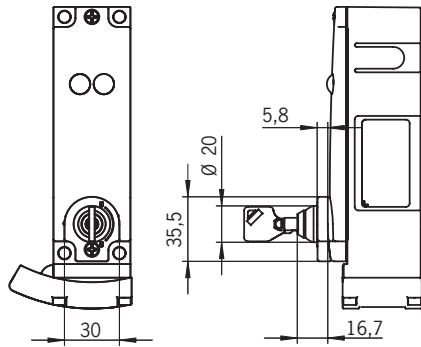
Switch-on time of safety outputs: The max. reaction time from the moment when the safety guard is locked to the moment when the safety outputs switch on T_{on} is 400 ms.

Risk time according to EN 60947-5-3: If an actuator moves outside the operating distance, transmission of the code sequence on the corresponding safety switch is deactivated after a maximum of 500 ms.

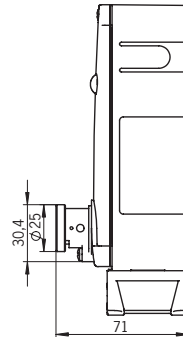
Dimension drawing safety switch CET.-AS



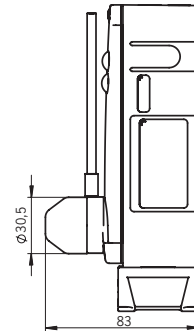
With mechanical key release



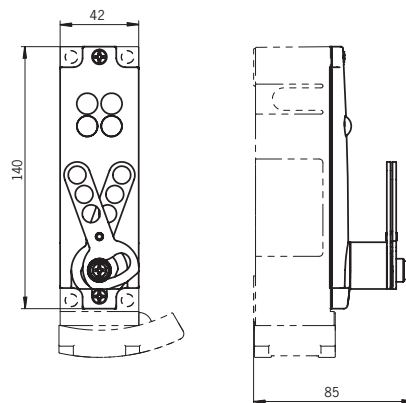
With emergency unlocking



With front wire release



With lockout mechanism

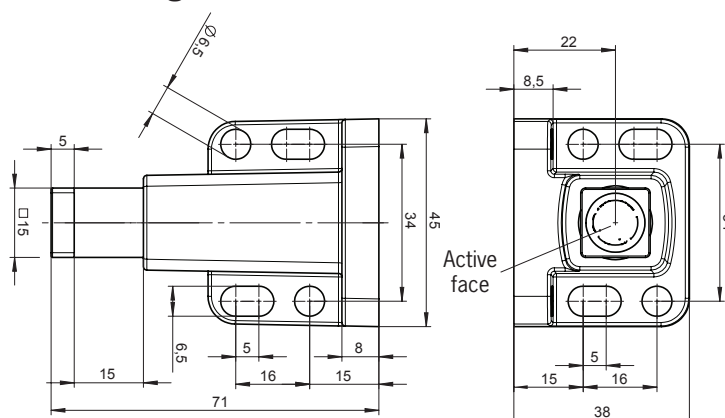


Technical data actuator CET-A-BWK-50X

Parameter	Value			Unit
	min.	typ.	max.	
Housing material	Stainless steel			
Stroke max.	15			mm
Weight	0.25			kg
Ambient temperature	- 20	-	+ 55	°C
Degree of protection acc. to EN IEC 60529	IP 67			
Mechanical life	1 x 10 ⁶ operating cycles			
Locking force, max.	6,500			N
Installation position	Active face opposite switch head			
Power supply	Inductive via switch			
Dwell time ¹⁾	0.5	-	-	s

1) The dwell time is the time that the actuator must be inside or outside the operating distance.

Dimension drawing actuator CET-A-BWK-50X



Tip!

Safety screws are included with the actuator.

Accessories

Designation	Use	Version	Order No./item
Mechanical key release	for safety switch CET	identical locking, incl. 2 keys	098850 Mechanical key release
Replacement key	for mechanical key release, identical locking	2 keys, identical locking	099434 Replacement key
Emergency unlocking	for safety switch CET	latching in both positions	103714 Emergency unlocking CET
Cover	for safety switch CET and actuator CET	door hinge right	098808 CET cover right
		door hinge left	098807 CET cover left
Mounting plate EMP-L-CET	for safety switch CET		106695 EMP-L-CET
Mounting plate EMP-B-CET	for actuator CET		106694 EMP-B-CET
Actuator	for safety switch CET	incl. safety screws	096327 CET-A-BWK-50X
Safety screws (spare)	for actuator CET	4 x M5 x 16 packaging unit: 100 ea.	073456 M5 x 16

Inspection and service

Warning!

Loss of the safety function because of damage to the system.
In case of damage, the entire device must be replaced.
Only accessories or spare parts that can be ordered from EUCHNER may be replaced.

Regular inspection of the following is necessary to ensure trouble-free long-term operation:

- › Check the switching function (see section *Functional check* page 20)
- › Check all additional functions (e.g. escape release, lockout mechanism, etc.)
- › Check the secure fastening of the devices and the connections
- › Check for soiling

No servicing is required, repairs to the device are only allowed to be made by the manufacturer.

Note:

The year of manufacture can be seen in the lower right corner of the rating plate.
The current version number in the format (VX.X.X) can also be found on the device.

Service

If service support is required, please contact:

EUCHNER GmbH + Co. KG
Kohlhammerstraße 16
D-70771 Leinfelden-Echterdingen

Service telephone:

+49 711 7597-500

E-mail:

info@euchner.de

Internet:

www.euchner.de

Declaration of conformity

More than safety.



EUCHNER

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Germany

EG-Konformitätserklärung
EC-Declaration of Conformity
CE-Déclaration de Conformité
CE-Dichiarazione di conformità
CE-Declaración de Conformidad

Original DE
Translation EN
Traduction FR
Traduzione IT
Traducción ES

110802-05-01/13

Die nachfolgend aufgeführten Produkte sind konform mit den Anforderungen der folgenden Richtlinien (falls zutreffend):
The beneath listed products are in conformity with the requirements of the following directives (if applicable):
Les produits mentionnés ci-dessous sont conformes aux exigences imposées par les directives suivantes (si valable)
I prodotti sotto elencati sono conformi alle direttive sotto riportate (dove applicabili):
Los productos listados a continuación son conforme a los requisitos de las siguientes directivas (si fueran aplicables):

I:	2006/42/EG 2006/42/EC 2006/42/CE 2006/42/CE 2006/42/CE	Maschinenrichtlinie Machinery directive Directive Machines Direttiva Macchine Directiva de máquinas
II:	2004/108/EG 2004/108/EC 2004/108/CE 2004/108/CE 2004/108/CE	EMV Richtlinie EMC Directive Directive de Compatibilité électromagnétique Direttiva EMV Directiva CEM

Die Schutzziele der Niederspannungsrichtlinie wurden gemäß Anhang I, Nr. 1.5.1 der Maschinenrichtlinie eingehalten.
The safety objectives of the Low-Voltage Directive comply with Annex I, No. 1.5.1 of the Machinery Directive.
Les objectifs de sécurité de la Directive Basse Tension sont conformes à l'annexe I, No. 1.5.1 de la Directive Machines
Gli obiettivi di sicurezza della Direttiva Bassa Tensione sono conformi a quanto riportato all'allegato I, No. 1.5.1 della Direttiva Macchine.
Los objetivos de seguridad de la Directiva de Bajo Voltaje cumplen con el Anexo I, No. 1.5.1 de la Directiva de Máquinas

Folgende Normen sind angewandt:
Following standards are used:
Les normes suivantes sont appliquées:
Vengono applicate le seguenti norme:
Se utilizan los siguientes estándares:

a: EN 60947-5-3:1999 + A1:2005
b: EN 1088: 1995+A2:2008
c: EN ISO 13849-1:2008
d: EN ISO 13849-2:2008
e: EN 50295:1999 (AS-I)

Bezeichnung der Sicherheitsbauteile Description of safety components Description des composants sécurité Descrizione dei componenti di sicurezza Descripción de componentes de seguridad	Type Type Type Tipo Tipo	Richtlinie Directives Directive Direttiva Directivas	Normen Standards Normes Norme Estándares	Zertifikats-Nr. No. of certificate Numéro du certificat Numero del certificato Número del certificado
Sicherheitschalter Safety Switches Interrupteurs de sécurité Finecorsa di sicurezza Interruptores de seguridad	CET1-AR... CET2-AR... CET3-AP... CET3-AR... CET4-AP... CET4-AR... CET3-AS... CET4-AS...	I, II I, II I, II I, II I, II I, II I, II	a, b, c, d a, b, c, d a, b, c, d a, b, c, d a, b, c, d a, b, c, d, e a, b, c, d, e	UQS 117149 UQS 113938 UQS 113325 UQS 113939 UQS 113940 UQS 113400 UQS 113971 UQS 113325
Betätiger Actuator Actionneur Azionatore Actuador	CET-A-BWK...	I, II	a, b, c, d	UQS 113325

Benannte Stelle
Notified Body
Organisme notifié
Sede indicata
Entidad citada

NB 0035
TÜV Rheinland Industrie Service GmbH
Am Grauen Stein - 51105 Köln - Germany

Leinfelden, Januar 2013

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